



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,303	09/11/2003	Nobumasa Suzuki	P24195	3578
7055	7590	06/28/2006	EXAMINER DOE, GRACE SC	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			ART UNIT 3732	PAPER NUMBER

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/659,303	SUZUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Grace SC Doe	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 April 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/12/06</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

1. This action is in response to Applicant's request for continued examination and supplemental amendment received on 4/25/06.

### ***Information Disclosure Statement***

2. The references listed in Applicant's information disclosure statement filed on 6/12/06 are acknowledged and are in compliance with 37 CFR 1.97 and 1.98.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Scharf (US 6,682,563). Scharf teaches a rhombic plate (See Figures 3 and 5) symmetrical about a point in which a first diagonal connects opposing acute angles and a second

diagonal connects opposing obtuse angles (See Figures 3 and 5). A plurality of screw holes is provided on one of the first diagonal and second diagonal line (See Figures 3 and 5, parts 31 & 32; Col. 5 lines 10-18). The holes have substantially the same shape (See Figures 3 and 5, parts 31 or 32). Further, it should be noted that Applicant fails to address in the specification the importance of screw holes having a similar hole shape. Scharf further discloses at least one spike located near at least one of the first and second diagonal line (See figure 3, part 25), extending continuously from the main body (See figure 1, parts 20 and 30), and V-shaped in cross section (See Figures 1, 2 and 3; Col. 4, lines 54-67; Col. 5, lines 1-7). The spike is V-shaped when taking a cross section perpendicular to the direction of penetration of at least one spike (See figure 1; col. 4, line 57). At least one spike is capable of insertion into a vertebra body (See figure 5; col. 4, lines 66-67). The main body includes a curved shape capable of corresponding to a peripheral surface of a vertebra body (See figures 3 and 5).

***Response to Amendment***

6. Applicant's amendments, new claims 4-5, are acknowledged and addressed in the above claim rejection sections.

***Response to Arguments***

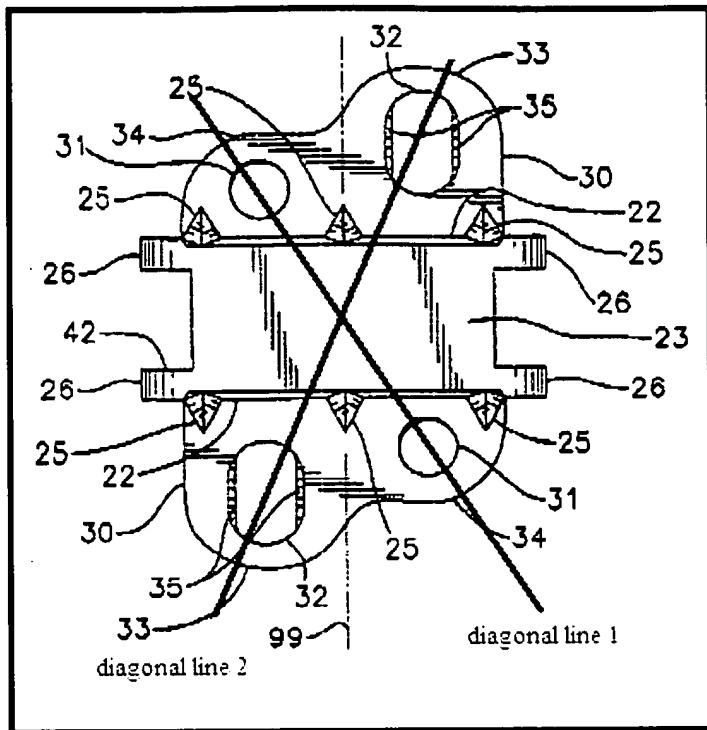
7. Applicant's arguments filed on 4/25/06 have been fully considered but they are not persuasive.

Art Unit: 3732

8. Applicant's replacement sheet (corrected figures 1 & 2) filed on December 19, 2005 are acceptable.

9. In response to Applicant's argument that Scharf fails to disclose a plurality of apertures having substantially the same shape, figure 3 however clearly shows a plurality of screw holes (two screw holes identified as part 31) having the same shape located a first diagonal and a plurality of screw holes (two screw holes identified as part 32) having the same shape located on a second diagonal line.

10. In response to Applicant's argument that Scharf fails to disclose at least one spike extending continuously from the main body portion, the main body may be defined as including the plate 30 and spacer 20. Therefore Scharf clearly shows that the spikes are continuously attached to the spacer, 20, and plate, 30, through part 22 (See figure 1). The spacing between plate 30 and spike 25 is of no consequence since the main body may be defined as including parts 22 and 33. Applicant further argues that only the plate 30 has diagonal lines. Examiner would like to point out that any object may be geometrically sectioned by diagonal lines. It is possible to superimpose a set of diagonal lines that extend through the plate, 30, and spacer, 20. Figure 3 clearly shows a main body, defined by a plate, 30, and spacer, 20, wherein the spikes, 25, are located near a pair of diagonal lines (See below figure).



11. In response to Applicant's argument that Scharf fails to disclose a spike configured to stick into a vertebra, Scharf states in the specification that the spikes "cut into the prepared surfaces of the vertebrae and preclude lateral or rotational movement of the device relative to the vertebrae once ... implanted" (See col. 4, lines 66-67; col. 5, lines 1-2). Although Applicant argues that the insertion of Scharf's spike is functionally and structurally different from that of Applicant's invention, the above quotation expressly reads on the limitation of claim 4. The features upon which applicant relies (i.e., structural difference between the insertion characteristics of Applicant's spike and Scharf's spike) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

12. In response to Applicant's argument that Scharf fails to disclose a curved shape corresponding to a peripheral surface of a vertebra body, figure 5 discloses a rhombic body plate that approximates the shape of a vertebra. Figure 5 shows the Scharf plate fixed to the vertebra; therefore, the shape of the Scharf plate is capable of corresponding to a surface of a vertebra.

***Conclusion***

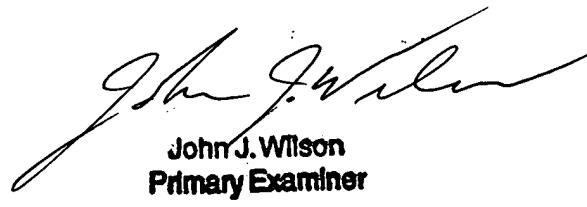
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grace SC Doe whose telephone number is (571) 272-2831. The examiner can normally be reached on Monday – Thursday from 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Grace SC Doe  
Examiner  
Art Unit 3732  
(571) 272-2831



John J. Wilson  
**Primary Examiner**